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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/500,357

Applicant(s)

ZHAO, BING

Examiner

BRENT W. HERRING

Art Unit

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 21,23-26,28-31,33-37,39-46,48,49,53,55-58 and 60-70 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 21,23-26,28-31,33-37,39-46,48,49,53,55-58 and 60-70 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 19 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claims 21, 32, 42, 47 and 70 are objected to because of the following informalities: proper names including, but not limited to Yixue, Taiji, and Gua should not be used in the claims. Their definitions are not commonly known to a person of ordinary skill in the art and a proper definition is not provided in the specification. Appropriate correction is required.
2. Although applicant claims that a person of ordinary skill in the art in Chinese culture would have common knowledge of the expressions, examiner maintains that a person of ordinary skill in the art is not familiar with these expressions.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 21, 23-26, 28-31, 33-37, 39-46, 48-49, 53, 55-58, and 60-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The claims includes a large degree of alternative-type language (e.g. "first ecological architectural structure for organisms and second ecological architecture structure for plants, animals, and a water resource are an opened type, closed type,

openable and closable type movable type or combined type") that make the scope of the claims impossible to ascertain. The example of alternative language in parentheses above is representative, but not exhaustive of the alternative language in the claims. The degree of alternatively language muddies the claims and renders the scope of the claims unclear.

6. The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Claims are examined as best understood. In view of the large amount of alternative language, prior art has been applied to the claims as they are best understood.

7. Furthermore, claims 24, 25, 28, 29 and 31 depend from canceled claim 22 so the claim scope is indeterminable.

Claim Rejections - 35 USC § 103

8. Claims 21, 23-26, 28-37, 39-41, 42-46, 48, 49, 53, 55-58, 60-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker, *Agricultural Buildings and Structures* in view of Placencia, U.S. 5,862,544 and Albers, U.S. Patent 4,008,689, further evidenced by the current state of art of each of zoos (Pittsburgh Zoo, cited), botanical gardens (USBG, cited), college campuses (Pennsylvania University, cited),

and plantations and farms (both Whitaker and Pennsylvania State University include farms).

Regarding claim 21:

Whitaker discloses a multifunctional tridimensional combined ecological architecture having one or more buildings (see Part I starting on p. 3) comprising:

- an ecological structure capable of use for organisms,
- a natural ecological structure,
- a place capable of use for human culture activity,
- an organism production system,
- cooperating systems;

wherein said one or more buildings have a tridimensional ecological structure (A TREE) and includes an aboveground part (see p. 9), an underground part, or both, wherein a top roof, sides wherein the top roof, sides, or both are partly or completely transparent (wherein the sides have windows, windows are inherently transparent, see p. 436), openable and closable, or both;

wherein said natural ecological structure and said ecological structures for organisms are provided anywhere in or on said at least one building, and include plants, organisms, water resource, and human cultural sights therein (see Chapter 21);

the tridimensional ecological structure of one or more buildings comprises a plurality of layers of ecological environment (streams, hills, trees, water cycle,

nitrogen cycle), said structure is of a structure formed of opened type, closed type, openable and closable type or combined type (roof, open roof, roof capable of being opened or closed) and has a fixed type of organism cultivation device (a pot for a plant or a trellis for vines), said device being vertically developed or horizontally developed, said more buildings comprising ecological structures with aesthetic symbols, hood type, frame hood types, tree frame types, 3d land types, 3d awning types, combined types, turret types, combined passage types, hacienda types, village types, town types, river types, bridge types, road types, wall types and organism cultivation mechanical types;

said organism production systems comprising cultivation devices, processing devices, storing and transferring devices, and marketing devices (see Ch. 21);

said cooperating systems comprising at least a part of a water recycling system (plants inherently perform these functions, furthermore, examiner takes official notice that water recapture and treatment is known to persons of ordinary skill in the art; it would have been obvious to a person of ordinary skill in the art at the time of the invention to use water recycling systems because water delivery and treatment from a central plant uses an excessive amount of energy that causes it to be comparatively inefficient and less economical than water recapture and treatment on location, as taught by Placencia, U.S. Patent 5,862,544), electrical (see Ch. 14), ventilation (see Ch. 16), temperature and humidity regulating (see Ch. 16, p. 295), light transmitting (greenhouses

comprised of glass inherently refract light and also allow for light transmission there through), methane (see p. 339 and p. 394, examiner takes official notice that if methane is contained and removed it is obvious to a person of ordinary skill in the art to store it in tanks because methane is a source of energy and as such, it is desirable to capture it for use, as taught by Albers, U.S. Patent 4,008,689), illumination and control systems (p. 454).;

said at least one building and systems combined in a manner of **part or complete combination**;

a flat laid irrigation system, a flat laid heating system, sewage recuperating and purifying and recycling systems, an energy saving illumination system and a monitoring control system; precipitation gathering and purifying devices, sewage purification, water reservoir, electricity, ecological rooms, temperature regulation, methane treatment, green energy generation devices, etc.

Should applicant argue that Whitaker does not disclose ALL of the elements of the claimed combination, note that the claim recites, "said at least one building and systems combined in a manner of part of complete combination," and Whitaker at the least discloses the combination in part.

Regarding claim 22:

Whitaker discloses claim 21, wherein

said water recycling system comprises a precipitation gathering and

purifying device, a sewage water recuperating and classification and purifying device, an external water resource input device, a device capable of filtering and purifying water from air, a sanitation device, a water reservoir device and a water supply device;

said electrical system comprising a power generation and storing device, a power transmission and power supply device, a voltage transformation and power distribution device;

said ventilation system comprising an air input/output device, an oxygen supply device, and air purifying and recycling device and a sanitation device;

said temperature and humidity regulation system comprising a temperature regulating device and a humidity regulating device;

said light transmitting system comprising a light refractive device and a light transmitting device;

said methane system comprising a methane tank and a methane storing and utilization device; said control system comprising automatic, manual or both control mechanism for the systems; and

wherein the place able to be used for human culture activity comprises a place able to be used for resting and a place for sports and cultural activities.

Regarding claim 32:

Whitaker discloses claim 21, and further discloses wherein the building is combinable in at least one of various types of forms listed. Refer to the figures throughout Whitaker.

Regarding claims 42 and 48:

Whitaker discloses claim 21, wherein said ecological structure capable of use for organisms and the natural ecological structure comprises at least one of an ecological structure of ecological wall type, and tridimensional warm house structure and wherein the structure comprises a space for organisms and an opening and closing device (a roof, a door, a window, ventilation).

Regarding claim 43:

Whitaker discloses claim 21, wherein said place capable of use for human cultural activity comprises a place capable of use for office, commerce, sports, culture, factories, schools, research, storage, sanatorium, stations, and recreation.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations insofar as the prior art apparatus is capable of being used in the manner as stated by the limitations of the claim.

Regarding the limitations directed to Taiji and Eight Gua graphics, note that the courts have found that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art. Furthermore, from what has been gleaned by the specification, these graphics provide no utility and are simply decorative/ornamental. As such, it would have been obvious to a person of ordinary skill in the art to provide the decorative/ornamental design to a building for aesthetic purposes.

Applicant supplies a laundry list of known items in combination and with alternative language that is 3.5 pages long, unclear, and incomprehensible. Although applicant feels that he is narrowing the claim by providing a laundry list of features in combination, applicant is rather muddying the claim scope and making it completely indeterminable.

Regarding claims 23-26, 28-31, 33-37, 39-41, 44-46, and 49, 53, 55-58, 60-70:

Whitaker discloses claims 22 and 32, but does not expressly disclose each and every limitation of the claims regarding the water filtration device, the theft alarm system, the roads and bridges, solar power devices, organisms and the other broad scope of limitations.

However, Examiner takes official notice that it is old and well known to use each of the systems and devices claimed by applicant in both combination and as a stand alone functioning unit. Support for this assertion includes college campuses (Penn State University), farms and plantations which are well known to persons of ordinary skill in the art. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have installed in and around a system of buildings each of these well-known devices and systems.

The motivation to combine each of these systems would have been to form a sustainable location that meets all of a community's needs.

Further regarding new claims 49-70:

Whitaker discloses the architecture capable of use with organisms and plants, animals, and a water resources, and said systems are any of completely, partly, or singly provided, wherein components are movable, with wheels (as in a car, an RV, a plane or a train), wherein the device comprises a movable warm house, has a rotation transmission device, like an engine, wherein 3-D ecological bridges are present, places for cultural activities, like dancing, power generation, like a generator or windmill, Taiji and Eight Gua are drawn to ornamentation that provide no utility and as such would be obvious to persons of ordinary skill in the art.

Response to Arguments

9. Applicant's arguments filed 10/11/2011 have been fully considered but they are not persuasive. Applicants arguments appear to be consistent, and nearly identical with Applicant's arguments from prior responses

10. Applicant has provided 18 pages of comments and arguments. Because of the large quantity of arguments, and the fact that many of the statements are redundant with prior stated arguments within the bulk of arguments, examiner has attempted to address the chief, clear arguments but has found it difficult to address every minutia.

11. Regarding applicant's argument that Yixue, Taiji, and Gua are known to a person of ordinary skill in the art, examiner maintains that these symbols are not known to persons of ordinary skill in the art. As stated by MPEP 2141.03, the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include: (A) "type of problems encountered in the art;" (B) "prior art solutions to those problems;" (C) "rapidity with which innovations are made;" (D) "sophistication of the technology; and" (E) "educational level of active workers in the field." A person of ordinary skill in the art would not be familiar with these terms. Applicant's arguments with respect to these terms have been previously addressed in prior office actions. Furthermore, from what has been gleaned by the specification, these graphics provide no utility and are simply decorative. As such, it would have been obvious to a person of ordinary skill in the art to provide a decorative design to a building for aesthetic purposes.

12. Examiner's statement that a tree is a tridimensional ecological structure is accurate. Tridimensional means having three dimensions, as has a tree. Ecological means drawn to organisms and their relationship, as a tree does, and a structure is an arrangement of parts, as a tree is. A tree DOES provide a place for growth of plants and animals, like birds and moss. Tridimensional means three dimensional. A tree has three dimensions.

13. "Layers of ecological environment" is examined with the broadest reasonable interpretation. As such, "streams, hills, trees, water cycle, and nitrogen cycle" ARE a plurality of layers of ecological environment. In a college campus, the multiple buildings that comprise the campus are a plurality of layers of ecological environment.

14. Because of the confusion wrought by the alternative language, applicant's arguments drawn to language contained within alternative language groupings are moot. For example, although Whitaker may not expressly disclose a movable type of organism cultural device (although a potted plant is movable), Whitaker does clearly disclose a fixed type of cultivation device and applicant claims "fixed type or movable type".

15. Examiner maintains that Whitaker discloses the presently claimed invention as best understood as stated by the rejections. Examiner maintains that Whitaker discloses an ecological system architecture combining one or more buildings, combined to form the 3-D ecological architecture device having various functions, and the buildings CAN OPTIONALLY be selected to be combined to achieve the beneficial

effect of protecting ecological environment and promoting diverse development of organisms and maintaining sustainable development of humans.

16. In view of applicant's superfluous arguments, for which the meaning, much like the present claims, is difficult to accurately ascertain, examiner maintains his positions. Judging by applicant's arguments, it appears that applicant does not fully understand "broadest, reasonable interpretation." Examiner agrees with applicant's arguments that examiner does not fully understand the scope and meaning of applicant's claim language. Applicant is urged to structure a claim that is devoid of the extraneous language in alternative form for which there is no patentable moment. **Such superfluous language serves to conceal, rather than clarify, the meaning and scope of the claims.**

17. Applicant has structured a claim that is 3.5 pages long, 93 lines long, and replete with alternative language and language that is verbose, but when reasonably interpreted, considerably broad. For example, "multifunctional tridimensional combined ecological architecture" is just one example of claim language that is excessively verbose, but extremely broad. The true meaning is revealed when the language is broken down. "Multifunctional" means capable of serving a number of functions. "Tridimensional" means three dimensional. "Combined" does not appear to mean anything in particular, wherein combined means together. "Ecological" means characterized by the interdependence of living organisms in an environment. And "architecture" means the structure of ANYTHING. Any building in which persons can congregate would meet the limitation of "a multifunctional tridimensional combined

ecological architecture." A tree, wherein a number of organisms cohabitate would also meet this limitation. Simply stating "a building" would clarify the scope of the claim in the instant case.

18. Applicant has combined a laundry list of known building systems into the claims in an attempt to overcome the examiner's obviousness rejection. These systems include, but are not limited to:

- a. a place for human culture activity
- b. an organism cultivation device
- c. cooperating systems
- d. ecological architecture structures of Taiji graphics type, Eight Gua graphics type, hood type, frame hood type, tree frame type, tridimensional land type, tridimensional awning type, combined frames type, turret frame type, combined passage type, hacienda type, ecological village type, ecological town type, tridimensional ecological river type, tridimensional ecological bridge type, tridimensional ecological road type, tridimensional wall type and organism cultivation mechanical frame type tridimensional ecological architecture structures (it is unclear if applicant desires to have all of these required in the scope of the claim or if this is alternative in scope where only one is required in the claim)
- e. irrigation systems
- f. illumination monitoring control system
- g. irrigation system

- h. heating system
- i. sewage and rain water recapture system
- j. water purification system
- k. a water reservoir
- l. an oxygen supply device
- m. green energy sources of wind, solar, hydro and mechanical
- n. temperature and humidity regulation devices

It is indisputable that all of these systems are known in the art and that their combination into a single building or group of building yields no extraordinary or unexpected results indicative of a patentable moment. College campuses, such as Penn State, have large multi-use buildings that both combine these systems into a single cooperative structure. It is suggested that applicant structure a claim geared around the crux of applicant's invention, i.e. an unobvious combination that yields an extraordinary or unexpected result, rather than piling extraneous, superfluous verbose claim limitations together in an attempt to gain allowability purely on breadth. **As the verbose claim language stands, the claim scope is completely indeterminable.**

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 10:00AM-7:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571)272-6754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENT W HERRING/
Examiner, Art Unit 3633

/Robert J Canfield/
for Brian Glessner, SPE of Art Unit 3633